



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,302	05/25/2001	Dinesh Verma	36994-172298	2793

26694 7590 05/05/2006

VENABLE LLP  
P.O. BOX 34385  
WASHINGTON, DC 20045-9998

EXAMINER

BOYCE, ANDRE D

ART UNIT PAPER NUMBER

3623

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/864,302	<b>Applicant(s)</b> VERMA ET AL.	
	<b>Examiner</b> Andre Boyce	<b>Art Unit</b> 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-72 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-72 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-72 have been examined.

#### ***Oath/Declaration***

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: It does not identify the mailing address of each inventor. A mailing address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing address should include the ZIP Code designation. The mailing address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

#### ***Specification***

3. The disclosure is objected to because of the following informalities: Figure 6D is missing from the Brief Description of the Drawings. In addition, the "Cross Reference to Related Application" information should be updated. Appropriate correction is required.

***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 300, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 600, 638, and 640.
5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "640" has been used to designate both interface windows in Figures 6C and 6D.
6. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

7. Claims 14, 22, 30, 32, 35, and 37 are objected to because of the following informalities:

Claim 14 recites "wherein said ease of upgrading existing functionality sub-attributes, said plurality of sub-attributes comprises." This language is awkward and confusing. Appropriate correction is required.

Claim 22 recites "std." This abbreviation should be written out within the body of the claim. Appropriate correction is required.

Claim 30 recites "MTTR." The acronym should be defined within the body of the claim. Appropriate correction is required.

Claim 32 recites "BIT." The acronym should be defined within the body of the claim. Appropriate correction is required.

Claims 35 and 37 recite "GPW." The acronym should be defined within the body of the claim. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 8-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 3623

Claim 8 recites the limitation "said modularity attribute" in line 1. There is insufficient antecedent basis for this limitation in the claim. Claims 9-17 are rejected based upon the same rationale, since they depend therefrom.

Claim 18 recites the limitation "said AHP structure" in line 1. There is insufficient antecedent basis for this limitation in the claim. Claims 19-23 are rejected based upon the same rationale, since they depend therefrom.

Claims 20 and 21 are rendered vague and indefinite. The claims include the phrases "(greater than 5)" and "(aerospace, medical, telecommunications)." It is unclear if these phrases are intended to be limiting features of the claims.

Claim 24 recites the limitation "said RMT attribute" in line 1. There is insufficient antecedent basis for this limitation in the claim. Claims 25-34 are rejected based upon the same rationale, since they depend therefrom.

### ***Claim Rejections - 35 USC § 101***

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 1-34 and 36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

For a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In order to be considered useful, the claimed invention must possess a practical application. In order to be concrete, the result

Art Unit: 3623

must be assured and reproducible. In order to be tangible, the result must involve more than a manipulation of an abstract idea.

In the present case, independent claim 1 recites a decision support system comprising an analytic hierarchy process model. The claim contains no corresponding structure of the system and is deemed non-statutory. Claims 2-34 are rejected based upon the same rationale.

In addition, independent claim 36 recites a decision support system comprising an analytic hierarchy process engine. This engine is deemed to be software per se, with no accompanying structure, therefore the claim is considered non-statutory.

### ***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1-8, 12, 15-44, 48, and 51-72 are rejected under 35 U.S.C. 102(e) as being anticipated by Abu El Ata (USPN 6,560,569).

As per claim 1, Abu El Ata discloses a decision support system for evaluating supportability of alternative system architecture designs (i.e., design of information systems to determine the best combination of hardware and software applications,

column 1, lines 49-55) comprising: an analytic hierarchy process (AHP) model (i.e., modeling of information system in a top/down approach, column 8, lines 56-63) comprising a plurality of attributes (i.e., multiplatform system consisting of multiple layers, column 9, lines 1-5), wherein said plurality of attributes comprises: a commonality attribute (i.e., application architecture layer, column 9, lines 23-27); a modularity sub-attribute (i.e., application architecture layer, column 9, lines 23-27); a standards based sub-attribute (i.e., operating environment layer, column 9, lines 23-27); and a reliability, maintainability, testability (RMT) sub-attribute (i.e., application implementation layer, column 9, lines 23-27).

As per claim 2, Abu El Ata discloses a plurality of sub-attributes of said commonality attribute, said plurality of sub-attributes of said commonality attribute comprising at least one of a physical commonality sub-attribute (i.e., construction module determines application compatibility, column 7, lines 1-3); a physical familiarity -sub-attribute; and an operational commonality sub-attribute.

As per claim 3, Abu El Ata discloses a plurality of sub-attributes of said physical commonality sub-attribute, said plurality of sub-attributes of said physical commonality sub-attribute comprising at least one of a hardware (HW) commonality sub-attribute; and a software (SW) commonality sub-attribute (i.e., application compatibility, column 7, lines 1-3).

As per claim 4, Abu El Ata discloses a plurality of sub-attributes of said hardware commonality sub-attribute, said plurality of sub-attributes of said hardware commonality sub-attribute comprising at least one of: a number of unique lowest



replaceable units (LRUs) sub-attribute (i.e., hardware components, including models of different types of components, column 6, lines 13-16); a number of unique fasteners sub-attribute; a number of unique cables sub-attribute; and a number of unique standards Implemented sub-attribute.

As per claim 5, Abu El Ata discloses a plurality of sub-attributes of said software commonality sub-attribute, said plurality of sub-attributes of said software commonality sub-attribute comprising at least one of a number of unique SW packages implemented sub-attribute (i.e., selection of software components, column 5, lines 14-19); a number of languages sub-attribute; a number of compilers sub-attribute; a average number of SW instantiations sub-attribute; and a number of unique standards implemented sub-attribute.

As per claim 6, Abu El Ata discloses a plurality of sub-attributes of said physical familiarity sub-attribute, said plurality of sub-attributes of said physical familiarity sub-attribute comprising at least one of a percentage vendors known sub-attribute; a percentage subcontractors known sub-attribute; a percentage HW technology known sub-attribute; and a percentage SW technology known sub-attribute (i.e., hardware components 54 and software components 58 are contained in component library and are therefore 100% known, column 6, lines 9-13).

As per claim 7, Abu El Ata discloses a plurality of sub-attributes of said operational commonality sub-attribute, said plurality of sub-attributes of said operational commonality sub-attribute comprising at least one of a percentage of operational functions automated sub-attribute (i.e., business response or process

time including non automated processes, column 16, lines 61-63); a number of unique skill codes required sub-attribute; an estimated operational training time - initial sub-attribute; an estimated operational training time refresh from previous system sub-attribute; an estimated maintenance training time - initial sub-attribute; and an estimated maintenance training time - refresh from previous system sub-attribute.

As per claim 8, Abu El Ata discloses a plurality of sub-attributes of said modularity attribute, said plurality of sub-attributes of said modularity attribute comprising at least one of: a physical modularity sub-attribute; a functional modularity sub-attribute; an orthogonality sub-attribute; an abstraction sub-attribute; and an interfaces sub-attribute (i.e., models of other components, including input/output devices, column 6, lines 20-24).

As per claim 12, Abu El Ata discloses a plurality of sub-attributes of said functional modularity sub-attribute, said plurality of sub-attributes of said functional modularity sub-attribute comprising at least one of an ease of adding new functionality sub-attribute (i.e., degree of parallelism, column 17, lines 31-33); and an ease of upgrade existing functionality sub-attribute.

As per claim 15, Abu El Ata discloses a plurality of sub-attributes of said orthogonality sub-attribute, said plurality of sub-attributes of said orthogonality sub-attribute comprising at least one of a determination of whether functional requirements are fragmented across multiple processing elements and interfaces sub-attribute; a determination of whether there are throughput requirements across

interfaces sub-attribute (i.e., throughput of number of units, column 15, lines 4-6); and a determination of whether common specifications are identified sub-attribute.

As per claim 16, Abu El Ata discloses a plurality of sub-attributes of said abstraction sub-attribute, said plurality of sub-attributes of said abstraction sub-attribute comprising: a determination of whether the system architecture provides an option for information hiding sub-attribute (i.e., degree of parallelism, column 17, lines 31-35).

As per claim 17, Abu El Ata discloses a plurality of sub-attributes of said interfaces sub-attribute, said plurality of sub-attributes of said interfaces sub-attribute comprising at least one of a number of unique interfaces per system element sub-attribute; a number of different networking protocols sub-attribute (i.e., network layers, column 9, lines 25-27); an explicit versus implicit interfaces sub-attribute; a determination of whether the architecture involves implicit interfaces sub-attribute; and a number of cables in the system sub-attribute.

As per claim 18, Abu El Ata discloses a plurality of sub-attributes of said standards based attribute, said plurality of sub-attributes of said standards based attribute comprising at least one of: an open systems orientation sub-attribute (i.e., operating environment layer, column 9, lines 23-27); and a consistency orientation sub-attribute.

As per claim 19, Abu El Ata discloses a plurality of sub-attributes of said open systems orientation sub-attribute, said plurality of sub-attributes of said open systems orientation sub-attribute comprising at least one of an interface standards

sub-attribute; a HW standards sub-attribute (i.e., hardware components 54, column 6, lines 21-25); and a software standards sub-attribute.

As per claim 20, Abu El Ata discloses a plurality of sub-attributes of said interface standards sub-attribute, said plurality of sub-attributes of said interface standards sub-attribute comprising at least one of: a number of interface standards/number and number of Interfaces sub-attribute (i.e., models of input/output devices, column 6, lines 21-25); a determination of multiple vendors (greater than 5) existing for products based on standards sub-attribute; a multiple business domains apply/use standard (Aerospace, Medical, Telecommunications) sub-attribute; and a standard maturity sub-attribute.

As per claim 21, Abu El Ata discloses a plurality of sub-attributes of said hardware standards sub-attribute, said plurality of sub-attributes of said hardware standards sub-attribute comprising at least one of: a number of form factors and number of LRUs sub-attribute; a multiple vendors (greater than 5) exist for a products based on standards sub-attribute; a multiple business domains apply/use standard (aerospace, medical, telecommunications) sub-attribute (i.e., descriptive data includes a description of the business processes, column 4, lines 15-19); and a standard maturity sub-attribute.

As per claim 22, Abu El Ata discloses a plurality of sub-attributes of said software standards sub-attribute, said plurality of sub-attributes of said software standards sub-attribute comprising at least one of: a number of proprietary & unique operating systems sub-attribute (i.e., software components 58 include models of software

programs, applications, and database management systems, column 6, lines 24-27); a number of non-std databases sub-attribute; a number of proprietary middle-ware sub-attribute; and a number of non-std languages sub-attribute.

As per claim 23, Abu El Ata discloses a plurality of sub-attributes of said consistency orientation sub-attribute, said plurality of sub-attributes of said consistency orientation sub-attribute comprising at least one of: common guidelines for implementing diagnostics and performance monitoring/fault localization (PM/FL) sub-attribute; and common guidelines for implementing operator machine interface (OMI) sub-attribute (i.e., models for input/output devices, column 6, lines 21-24).

As per claim 24, Abu El Ata discloses a plurality of sub-attributes of said RMT attribute, said plurality of sub-attributes of said RMT attribute comprising at least one of: a reliability sub-attribute (i.e., percentage elongation, column 15, lines 20-27); a maintainability sub-attribute; and a testability sub-attribute.

As per claim 25, Abu El Ata discloses a plurality of sub-attributes of said reliability sub-attribute, said plurality of sub-attributes of said reliability sub-attribute comprising at least one of a fault tolerance sub-attribute; and a critical points of delicateness (system loading) sub-attribute (i.e., elongation factor, column 15, lines 20-27).

As per claim 26, Abu El Ata discloses a plurality of sub-attributes of said fault tolerance sub-attribute, said plurality of sub-attributes of said fault tolerance sub-attribute comprising at least one of a percentage of mission critical functions with single points of failure sub-attribute (i.e., elongation factor, column 15, lines 20-26); and a percentage of safety critical functions with single points of failure sub-attribute.

As per claim 27, Abu El Ata discloses a plurality of sub-attributes of said critical points of delicateness (system loading) sub-attribute, said plurality of sub-attributes of said critical points of delicateness (system loading) sub-attribute comprising at least one of: a percentage of processor loading sub-attribute (i.e., degradation ratio, column 17, lines 16-22); a percentage of memory loading sub-attribute; and a percentage of network loading sub-attribute.

As per claim 28, Abu El Ata discloses a criticality assessment sub-attribute of said percentage memory loading sub-attribute (i.e., degradation ratio, column 17, lines 16-22).

As per claim 29, Abu El Ata discloses a criticality assessment sub-attribute of said percentage network loading sub-attribute (i.e., network utilization, column 15, lines 1-3).

As per claim 30, Abu El Ata discloses a plurality of sub-attributes of said maintainability sub-attribute, said plurality of sub-attributes of said maintainability sub-attribute comprising at least one of an expected MTTR sub-attribute; a maximum fault group size sub-attribute (i.e., maximum value of elongation factor, column 15, lines 25-31); a determination of whether system is operational during maintenance sub-attribute; and an accessibility sub-attribute.

As per claim 31, Abu El Ata discloses a plurality of sub-attributes of said accessibility sub-attribute, said plurality of sub-attributes of said accessibility sub-attribute comprising at least one of a space restrictions determination sub-attribute; a special tool requirements determination sub-attribute; and a special skill

requirements determination sub-attribute (i.e., designer determines whether enough models have been displayed to make a selection, column 5, lines 39-41).

As per claim 32, Abu El Ata discloses a plurality of sub-attributes of said testability sub-attribute, said plurality of sub-attributes of said testability sub-attribute comprising at least one of: a BIT Coverage sub-attribute; an error reproducibility sub-attribute (i.e., aging ratio used to predict system inefficiency, column 15, lines 46-51); an online testing sub-attribute; and an automated input/stimulation insertion sub-attribute.

As per claim 33, Abu El Ata discloses a plurality of sub-attributes of said error reproducibility sub-attribute, said plurality of sub-attributes of said error reproducibility sub-attribute comprising at least one of: a logging/recording capability sub-attribute (i.e., system model used to predict performance indicators, column 16, lines 18-20); and a determination of whether system state at time of system failure can be created sub-attribute.

As per claim 34, Abu El Ata discloses a plurality of sub-attributes of said online testing sub-attribute, said plurality of sub-attributes of said online testing sub-attribute comprising at least one of: a determination of whether system is operational during external testing sub-attribute (i.e., percent utilization, column 14, lines 59-65); and an ease of access to external testpoints sub-attribute.

As per claim 35, Abu El Ata discloses decision support system for evaluating the supportability of alternative system architecture designs (i.e., design of information systems to determine the best combination of hardware and software applications,

column 1, lines 49-55) comprising: means for assigning relative weights to each attribute and sub-attribute of a plurality of attributes and sub-attributes (i.e., multiplatform system consisting of multiple layers, wherein the volume and weight of each function is described column 9, lines 1-5) of an analytical hierarchy process (AHP) model (i.e., modeling of information system in a top/down approach, column 8, lines 56-63) wherein said plurality of attributes comprises: a commonality attribute (i.e., application architecture layer, column 9, lines 23-27); a modularity sub-attribute (i.e., application architecture layer, column 9, lines 23-27); a standards based attribute (i.e., operating environment layer, column 9, lines 23-27); and a reliability, maintainability, testability (RMT) attribute (i.e., application implementation layer, column 9, lines 23-27), comprising: means for performing pair-wise comparisons of said plurality of attributes and sub-attributes at all levels of said AHP model (i.e., designer makes selection based upon the performance metric of each model in comparison with the other models, column 5, lines 37-42), and means for assigning relative weights to all of said attributes and sub-attributes at all levels of said AHP model (i.e., volume and weight of each function carefully described in descriptive input 12, column 9, lines); means for generating a GPW for each of a plurality of alternative system architecture designs (i.e., calculation of performance metric for each model, column 5, lines 25-27) comprising: means for performing pair-wise comparisons of each of said plurality of alternative system architecture designs with respect to said all of said attributes and sub-attributes at all levels of said AHP model (i.e., designer makes selection based upon the performance metric of each model in



comparison with the other models, column 5, lines 37-42); and means for evaluating said plurality of alternative system architecture designs from a supportability perspective comprising comparing values of said GPWs of said plurality of alternative system architecture designs (i.e., designer makes selection based upon the performance metric of each model in comparison with the other models, column 5, lines 37-42).

Claim 36 is rejected based upon the same rationale as the rejection of claim 35, since it contains similar limitations.

Claims 37-44, 48, and 51-70 are rejected based upon the rejection of claims 35, 2-8, 12, and 15-34, respectively, since they are the method claims corresponding to the system claims.

As per claim 71, Abu El Ata discloses performing sensitivity analysis of said pairwise comparisons (i.e., changing the initial descriptive input provided to the system, column 5, lines 54-56).

Claim 72 is rejected based upon the rejection of claim 35, since it is the computer program product claim corresponding to the system claim.

### ***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3623

15. Claims 9-11, 13, 14, 45-47, 49, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abu El Ata (USPN 6,560,569), in view of Kucukcakar (USPN 5,815,715).

As per claim 9, Abu El Ata does not explicitly disclose a plurality of sub-attributes of said physical modularity sub-attribute, said plurality of sub-attributes of said physical modularity sub-attribute comprising at least one of: an ease of system element upgrade sub-attribute; and an ease of operating system element upgrade sub-attribute. Kucukcakar disclose the cost and/or performance of a particular architecture having to fall within a specified acceptance level (i.e., ease of system upgrade, column 2, lines 27-35), wherein the software design phase includes generation of software code in the software design phase (column 6, lines 18-21). Both Abu El Ata and Kucukcakar are concerned with system design, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include ease of system upgrade in Abu El Ata, as seen in Kucukcakar, in order to meet an acceptable level of cost and/or performance, as disclosed by Kucukcakar, thus making Abu El Ata more robust.

As per claims 10, 11, 13, and 14 Abu El Ata does not disclose at least one of a lines of modified code sub-attribute; and an amount of labor hours for system rework sub-attribute. Kucukcakar disclose the cost and/or performance of a particular architecture having to fall within a specified acceptance level (i.e., ease of system upgrade, column 2, lines 27-35), wherein the software design phase includes generation of software code in the software design phase (column 6, lines 18-21).

Art Unit: 3623

Both Abu El Ata and Kucukcakar are concerned with system design, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a number of lines of modified code in Abu El Ata, as seen in Kucukcakar, in order to meet an acceptable level of cost and/or performance, as disclosed by Kucukcakar, thus making Abu El Ata more robust.

Claims 45-47, 49, and 50 are rejected based upon the rejection of claims 9-11, 13, and 14, respectively, since they are the method claims corresponding to the system claims.

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Abu El Ata (USPN 6990437) discloses designing an optimal IS architecture.

-Myers Jr. et al (USPN 6959268) disclose a collaborative engineering environment.

-Abraham et al (USPN 6963823) disclose design spaces for hierarchical systems.


17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Boyce whose telephone number is (571) 272-6726. The examiner can normally be reached on 9:30-6pm M-F.

Art Unit: 3623

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

adb  
April 28, 2006

  
ANDRE BOYCE  
PATENT EXAMINER  
A.U. 3623